



November 2006

Economic and Revenue Forecast

Fiscal Year 2007
Second Quarter



WASHINGTON STATE DEPARTMENT OF
Natural Resources
Doug Sutherland - Commissioner of Public Lands

Acknowledgements

The Department of Natural Resources' (DNR) revenue forecast is a collaborative effort. It is the product of information provided by private individuals and organizations, as well as DNR staff. Without their contributions the value of the forecast would be greatly diminished.

This forecast draws heavily on a number of publications including those from Resource Information Systems, Inc. (RISI) and Clear Vision Associates (CVA). I would especially like to thank John Natt of CVA and Rocky Goodnow of RISI for their input and for providing data that we use in formulating our forecast of DNR's stumpage prices.

I want to extend special thanks to the individuals who provided information as part of our purchasers' survey. These busy individuals and companies willingly provided information that is essential for estimating timber harvest volume.

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My sincere thanks to you all.

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Acronyms and abbreviations

Bbf	Billion Board Feet
CDN\$	Canadian dollar
CPI	Consumer Price Index
CY	Calendar Year
DNR	Washington State Department of Natural Resources
FDA	Forest Development Account
Fed	U.S. Federal Reserve
FOMC	Federal Open Market Committee
FY	Fiscal Year
GDP	Gross Domestic Product
ISM	Institute For Supply Management
mbf	Thousand board feet
MMbf	Million board feet
NAFTA	North American Free Trade Agreement
OPEC	Organization of Petroleum Exporting Nations
PPI	Producer Price Index
RCW	Revised Code of Washington
RISI	Resource Information Systems, Inc.
RMCA	Resource Management Cost Account
SAAR	Seasonally Adjusted Annual Rate
US\$	U.S. dollar
WTO	World Trade Organization
Y	Japanese yen



Preface

This forecast projects revenues from Washington State trust lands, managed by the state Department of Natural Resources (DNR). These revenues are distributed to management funds and beneficiaries as directed by statute. The forecast information is provided by source, fund, and fiscal year.

DNR revises its forecast quarterly to provide updated information for trust beneficiaries and for department budgeting purposes. We strive to produce the most accurate and objective forecast possible, based on the current policy direction of the department and available information. (See Forecast Calendar for data release dates). Actual revenues will depend on future policy decisions by the department, and on market conditions beyond the department's control.

This forecast covers fiscal years 2006 through 2011. Fiscal years for Washington State government begin on July 1 and end on June 30. For example, FY 2007 runs July 1, 2006 through June 30, 2007.

The baseline date for this forecast is June 30, 2006, the end of the fourth quarter of FY 2006. Normally the baseline date for a November Forecast would be September 30, 2006 but in March 2006, DNR shifted to a new revenue and land management computer system. By the publication date of this forecast, the new system had not produced the monthly or quarterly reports that are usually used as baseline data for each forecast. Actual removal and revenue data are current as of June 30, 2006. The forecast beyond that date is based on the most up-to-date market information available at the time of publication, including DNR's timber sales results through October 2006. The new system is expected to produce monthly reports for the March 2007 Forecast.

Unless otherwise indicated, values are expressed in nominal terms without adjustment for inflation. Therefore, interpretation of trends in the forecast requires care in separating inflationary changes in the value of money over time from changes attributable to other economic influences.

Each forecast builds on the previous one, emphasizing ongoing changes. Forecasts evaluate international and national macroeconomic conditions and the demand and supply for forest products, and then analyze the impact on projected revenues from DNR-managed trust lands.

DNR forecasts provide information that is used in the statewide Washington Economic and Revenue Forecasts by the Office of the Forecast Council. The timing for DNR forecasts is determined by the schedule of the statewide forecast, prescribed by RCW 82.33.020. The table below shows the anticipated schedule for future DNR Economic and Revenue forecasts.

Forecast Calendar

Forecast Title	Baseline Date	Draft Data Release Date	Final Data and Publication Date (approximately)
March 2007	End Q2, FY 2007	March 7, 2007	March 30, 2007
June 2007	End Q3, FY 2007	June 7, 2007	June 29, 2007
September 2007	End Q4, FY 2007	Sept. 7, 2007	Sept. 28, 2007
November 2007	End Q1, FY 2008	Nov. 7, 2007	Nov. 30 2007



Introduction and Forecast Highlights

Economic conditions

The U.S. housing market appears to be in the early stages of a major correction. The full depth and length of the correction has yet to be revealed but at this point, it appears, the correction will be greater than previously anticipated and its impact on the forest products industry and DNR revenues likely will be greater than previously forecast.

During the housing boom of the past five years North American lumber capacity has increased about 10 billion board feet to 65 billion board feet. That's enough to supply the ongoing remodeling, repair and other demand and build 2.2 million new homes. But average demand going forward (supported by projected demographic models) is only about 2.0 million starts. To bring supply capacity in line with expected demand, about 2 billion board feet of mill capacity will need to close permanently.

Because of the drop in housing starts during the first 10 months of CY 2006, lumber consumption dropped by 5 percent while U.S. lumber production fell by less than 2 percent. At the same time Canadian mills ramped up their U.S. exports in anticipation of the implementation of a 15 percent import duty under the new softwood lumber agreement. As a result lumber inventories are backing up in the distribution chain and lumber prices have fallen to 5-year lows and for some species to 40 year lows in real terms. Even at these lower prices, mills are reporting difficulty finding buyers to take supply at this time of seasonally low demand.

In response to reduced demand and reduced margins, many mills across North America have announced permanent and temporary sawmill closures including over 20 mills in Washington and Oregon. Over the past several weeks almost two dozen sawmills have announced indefinite closures in eastern Canada totaling approximately 2.5 billion board feet of sawmill capacity. It is likely that a large percentage (1.5 billion) of this capacity reduction will become permanent. We project it will take a year to 18 months for capacity to adjust to the lower demand level.

To date, Washington's log and stumpage prices have remained relatively strong in the face of falling lumber prices. We are forecasting that DNR stumpage prices to fall from an average of \$366/MBF in FY 06 to \$315/MBF in FY 08, a reduction of only 16 percent. The timing of temporary, indefinite and permanent capacity closures will greatly influence the timing of the recovery of lumber and stumpage prices.

Changes from the previous Forecast

Over the entire six-year forecast period (FY 06 through FY 11), forecast revenues are down \$20.8 million from that forecast in September, a sizable amount but less than 2 percent of the revenues forecast for the period. Forecast revenues are down by \$14.1 million or 2.8 percent in the current biennium, and down by \$7.6 million or 1.5 percent in the next biennium from that forecast in September.

By revenue source The average Sales price in FY 06 was \$1/mbf less than was previously forecast. Forecast sales prices in FY 07 were reduced by \$15/mbf or 4 percent to \$335/mbf. Forecast timber sales prices for the remainder of the forecast period were unchanged. However, our judgment of the down-side potential has increased significantly since the previous forecast.

The planned sales volumes are unchanged. Nor, have we changed our expectation that purchasers will continue to harvest on average about 10 months after a sale. However, recent temporary closures and curtailments of mill operations in Washington and Oregon may result in purchasers holding DNR sales longer than we currently project.

Forecast timber sales revenues are down by \$26.3 million for the entire forecast period. Reduced forecast timber sales prices account for \$9.0 million of the reduction. The remaining \$17.3 million is the result of inventory adjustments.

Forecast upland lease revenues increased \$2.7 million because of successful oil and gas auctions. Forecast Aquatic lease revenues were increased by \$2.9 million.

See **Table 3.1** at the end of this Forecast for detail of changes by revenue source by fiscal year.

By fund The November Forecast incorporates preliminary actual revenues by fund for FY 2006. The starting point for forecast timber revenues in FY 07 and beyond is the value under contract delineated by trust as of July 1, 2006 the beginning of FY 07. In addition, the regions' first sale by sale plans for FY 2008 were incorporated into this forecast. These sales plans include estimates of the sales value by grant. These changes resulted in some significant shifts in revenues by fund.

Forecast RMCA upland revenues are down by \$3.8 million or 4.7 percent this biennium but virtually unchanged in total next biennium. While total forecast FDA revenues are virtually unchanged this biennium, projected FDA revenues are down by 2.2 million or 5.0 percent next biennium.

See **Table 3.2** for detail of changes by fund by fiscal year.



Part 1. Macroeconomic Conditions

"... over the long term, timber prices are residual values determined by national and international markets based on what the final product market will pay for timber, rather than supply competition at the local level."

The Future of Washington's Forests and Forestry Industries
College of Forest Resources, University of Washington
October 2006

Because macroeconomic conditions affect the bid prices received by the Department of Natural Resources (DNR) for its stumpage (timber) sales, DNR reviews current and predicted conditions of the U.S. and world economies when preparing each forecast.

International supply and demand affect domestic stumpage prices because the wood products industry (timber as well as finished products) is generally subject to few trade barriers. In addition, relative product prices, which are affected by exchange rates, can play a significant role in the relative competitiveness of the U.S. domestic industry.

Construction activity, particularly new housing, repairs, and remodeling, accounts for most of the consumption of finished wood products in the U.S. As a result, factors that affect construction influence revenues and revenue forecasts. Construction activity generally follows a trajectory of economic growth and is particularly susceptible to interest rate fluctuations.

Every year in the September Forecast, we include a section in the forecast based on this review. Readers interested in the impacts of macroeconomic conditions on DNR's Forecast should refer to this section in the September 2006 Forecast.



Part 2. Log and Lumber Industry Factors

This chapter focuses on the North American timber and wood products industry: in particular, the specific factors that affect the stumpage prices received by DNR¹ and influence other changes in the revenue forecast. Stumpage prices reflect demand for lumber and other wood products, timber supply, and regional and local milling capacity. The demand for lumber and wood products is directly related to the demand for housing and other end-use markets.

U.S. Housing Markets

Inflation What just happened to inflation? October's CPI was *down* for the second month in a row. For September and October, CPI was *down* 1 percent or at an annual rate of *minus* 6 percent. During the same period, the core CPI was up by 0.53 at an annual rate of plus 3.2 percent. This improvement is largely the result of the recent declines in energy prices that had gone up significantly earlier this year.

CPI had been running dangerously close to 4 percent but thanks to that last two months is now up only 1.3 percent for the past 12 months while the core is up by 2.7 percent. In a Nov. 28th speech, Federal Reserve Chairman Ben Bernanke stated that the level of the core inflation rate remains “uncomfortably high” and that “whether further policy action against inflation will be required will depend on incoming data”².

The October PPI was down by 1.2 percent after dropping 1.1 percent in September. For the last 12 months PPI is down by 1.5 percent, while core PPI was up by 0.6 percent for the same time period, indicating that inflationary pressure isn't building in the economy.

Interest rates At its meeting in late October, the Federal Reserve's policy-making committee held short-term interest rates steady at 5.25 percent for the third time in a row. Minutes from that meeting indicated that while members of the committee are still worried about inflation, they're also aware that a weak housing market (more about that below) may keep economic growth in check. It appears that the Fed is satisfied with the current short-term rate level and the balance of risks and likely will not change rates until it gets a strong signal that inflation is surging or that the economy is faltering.

¹ Although DNR timber sales are a significant source of timber in the Pacific Northwest, volumes generally are not sufficiently large to affect prices.

² See remarks by Chairman Ben S. Bernanke, before the National Italian American Foundation, November 28, 2006 at <http://www.federalreserve.gov/boarddocs/speeches/2006/20061128/default.htm>

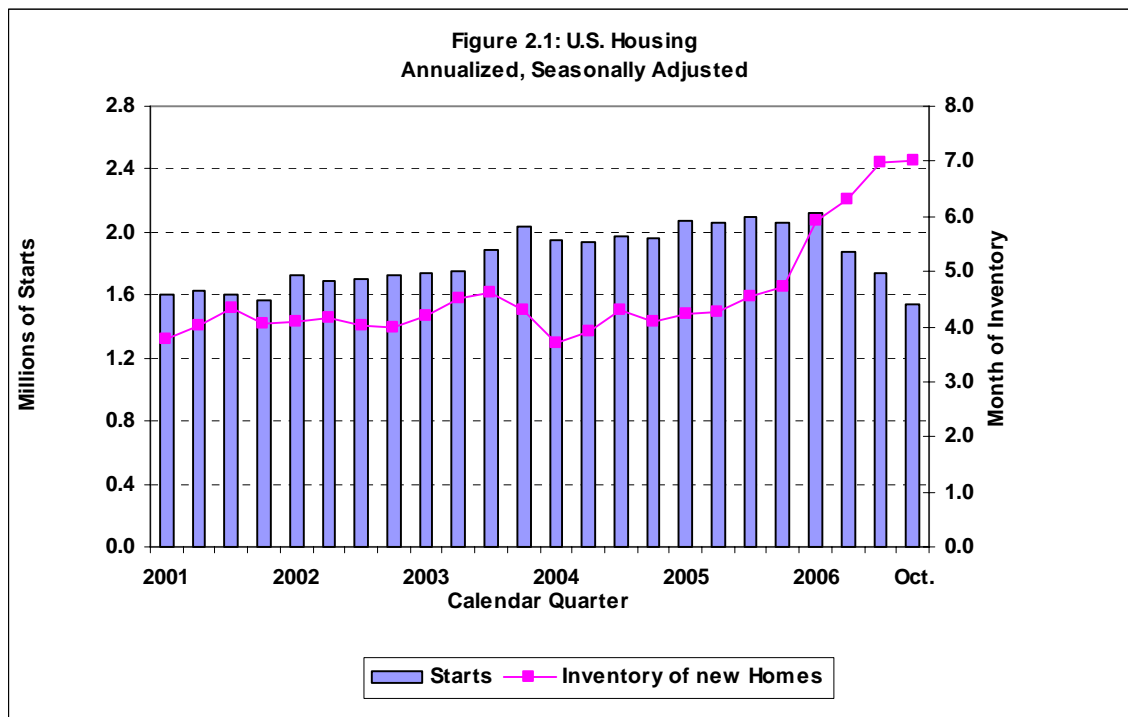
After the latest CPI numbers were released, interest rate futures fell. Now they're projecting that the Fed will hold the benchmark federal funds rate at 5.25 percent through January, but that there is a 30 percent chance that by the end of June 2007, the rate will be cut by a quarter percent.

In late November, the 10-year Treasury bond rate is at 4.46 percent (and falling) -- well below the Federal funds rate -- while the 30-year fixed-rate mortgage has fallen to 6.1 percent, its lowest level since January. Mortgage rates are expected to fall over the forecast period to a low of 5.0 percent in FY 09.

Housing Since 1996 the CPI has increased by about a third. During that same period the average price of existing homes has almost doubled. Housing affordability has taken a big tumble over the last three years (see **Figure 2.2**) due to the rise of new home values, higher interest rates and stagnant incomes.

In September, new home prices were down almost 10 percent from a year ago, the biggest percentage decline in more than 35 years. It is the latest sign that builders are struggling to unload a glut of unsold homes. As a result of lower housing prices and slightly lower mortgage rates, affordability has already begun to turn around and stood at 1.07 in October.

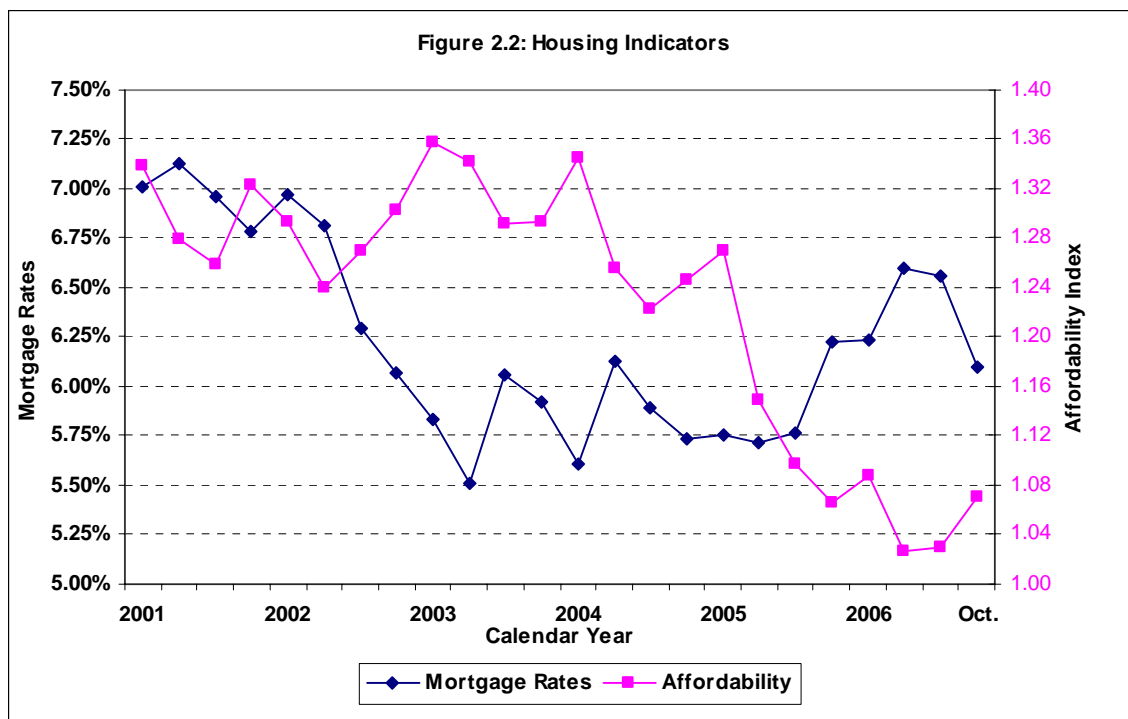
But the housing market is now saturated. Home ownership is at almost 70 percent, up from 67 percent in 2000 before the current housing boom began. Home vacancy rates are at 2.5 percent up from the pre-boom 1.5 percent. The annual rent-to-value ratio on multi-family units has dropped a third -- from 6.9 percent to 4.5 percent today.



Over the past 12 months, the effective inventory of new homes has increased by 55 percent from 4.5 months to 7.0 months today. The slowdown in housing starts has no yet begun to reduce the effective inventory as new home completions continue to match sales. See **Figure 2.1** for detail.

After housing starts rose to 1.77 million SAAR (Seasonally Adjusted Annual Rate) in+ September, they plummeted to 1.49 million in October, down nearly 32 percent from a year-ago. October was the lowest reading since July 2000. New building permits fell in October as well, indicating that future housing starts will be even lower. New home sales in October (1.45 million) were 3 percent below starts.

We believe that housing starts will need to average less than 1.7 million for the next nine to twelve months before inventories return to normal levels.



The affordability index is the ratio of median family income and the income needed to qualify to buy a median-priced home.

Lumber, Log, and Stumpage Prices

“Canadian SPE (lumber) prices remain so low it is doubtful even the lowest-cost mills are making any profits”

Wood Markets
Monthly International Report
November 2006

Lumber

For the first 10 months of CY 2006 housing starts are down by 10 percent -- compared to the same period last year -- and they are still falling. During this same period US lumber production is down only 2 percent while net imports are down less than 1 percent. Lumber consumption was about 42.5 billion board feet, while about 43.8 billion board feet was produced and imported. That means there is an extra 1.3 billion board feet of lumber backed up in the distribution chain.

During that past five year bull housing market, about 10 billion board feet of new, highly efficient lumber capacity was added in North America. North American mills are now geared up to produce 65 billion board feet of lumber annually – enough to supply the on-going needs for industry, repairs and alterations of existing homes and build 2.2 million houses. With residential construction projected to average 2.0 million starts, demand for lumber will fall short by 2 billion board feet of the industry's capacity to produce at normal operating rates.

To bring supply back in line with long-term demand, mills must reduce capacity by 7 percent. The eliminated capacity will likely be the older and less efficient facilities.

US/Canadian softwood lumber agreement The Softwood Lumber Agreement is now in place and Canadian shippers are paying a 15 percent tax at the border instead of 10.8 percent duties. The signing of the deal also put into motion the refunding to Canadians of approximately \$US4.3 billion of the \$5.3 billion in duties paid since May 2002; \$1 billion of the total stays in the U.S. One big question is what the Canadian mills will do with this wind fall? Hopefully, it will not be used to build new capacity, but undoubtedly some of it will be used to improve efficiency of existing mills, the unintended consequence of which is often increased capacity.

The duty on imported Canadian lumber depends on the trailing six-month Random Lengths Framing Lumber Composite Price (trigger price). There is no duty if the trigger price is above \$355/mbf; the duty is 5 percent if the trigger price is between \$355 and \$335; the duty increases to 10 percent if the trigger price is between \$335 and \$315; the

duty is 15 percent (its maximum and where it is today) if the trigger price is less than \$315/mbf.

Canadian lumber producers' attempt to get as much lumber across the border before the higher rates went into effect was ill timed as U.S. demand reeled from falling housing prices. This left a lot of unsold inventory south of the border where it will likely sit until demand picks up in the spring.

Mill closures Over the past several weeks almost two dozen sawmills have announced indefinite closures in eastern Canada totaling approximately 2.5 billion board feet of sawmill capacity. The mills have cited several factors, including lower lumber selling prices, the high value of the Canadian dollar, higher energy and fuel costs, and the new Softwood Lumber Agreement (See above). There has also been a 20 percent reduction in the annual allowable cut in Quebec. It is likely that a large percentage (1.5 billion) of this capacity reduction will become permanent.

Closer to home, companies in the Western US have announced 23 permanent, indefinite, and partial closures³.

According to *Wood Markets*, "mills are losing as much as 20 percent on sales" in October.⁴ Some mills are reporting that they can't sell new lumber at any price because buyers are understandably unwilling to take on more inventory at a time of seasonally low demand and when their lumber yards are already full.

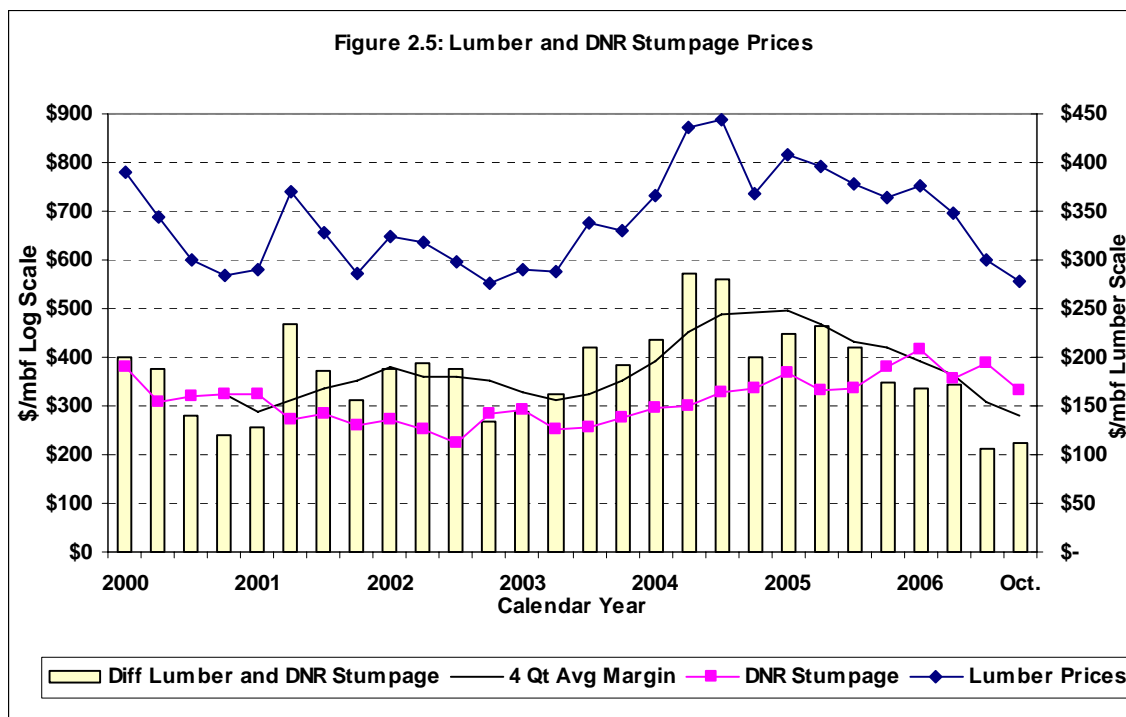
In August, European shipments, which supplied about 4 percent of the U.S. market last year, are down by one-third from last year. Rising fiber costs in Europe, coupled with a stiffer export tax imposed on raw log exports from Russia and a stronger euro are making European wood more costly. Favorable markets elsewhere (Europe, Japan and the Middle East) are drawing even North American wood away from very weak U.S. markets. Canadian off-shore lumber exports were up by 30 percent in August from the same period last year while U.S. off-shore log exports were up a whopping 60 percent.

Prices U.S. lumber prices are hitting five-year lows, similar to when markets were over supplied in 1995 and 2001. *Random Lengths* reported an average softwood lumber price of \$278/mbf (lumber scale) for October of 2006, more than 20 percent down from the same period last year and the lowest price reported since late 2002. For the third quarter of CY 2006, the average softwood lumber price was \$300/mbf. See **Figure 2.5** for detail.

DNR prices averaged \$390/mbf during the third quarter, up by 10 percent from the previous quarter (albeit on thin volumes), but fell to \$330/mbf during October.

³ See Random lengths Curtailment Watch Lumber mills West for detail
http://www.randomlengths.com/base.asp?s1=Daily_WoodWire&s2=Curtailment_Watch&s3=Lumber_Mills-West&pub=list

⁴ Wood Markets, *Monthly International Report*, Volume 11, Number 8 October 2006



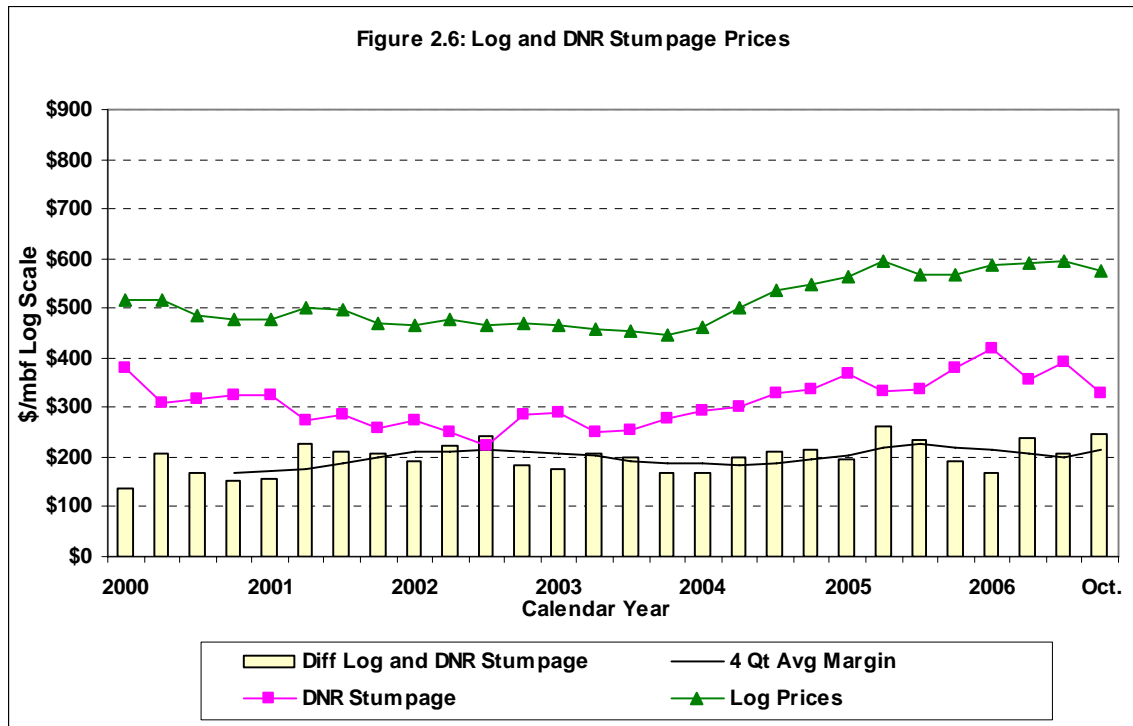
Note: "Margin" is defined as the difference between the average price of lumber and DNR stumpage.

Lumber prices have fallen more than DNR stumpage prices, reducing the fourth quarter moving average of lumber "margin" (the difference between DNR stumpage and lumber prices) by 40 percent from its peak in the first quarter of CY 2005. This is the margin's lowest level since 2001. (See **Figure 2.5** above)

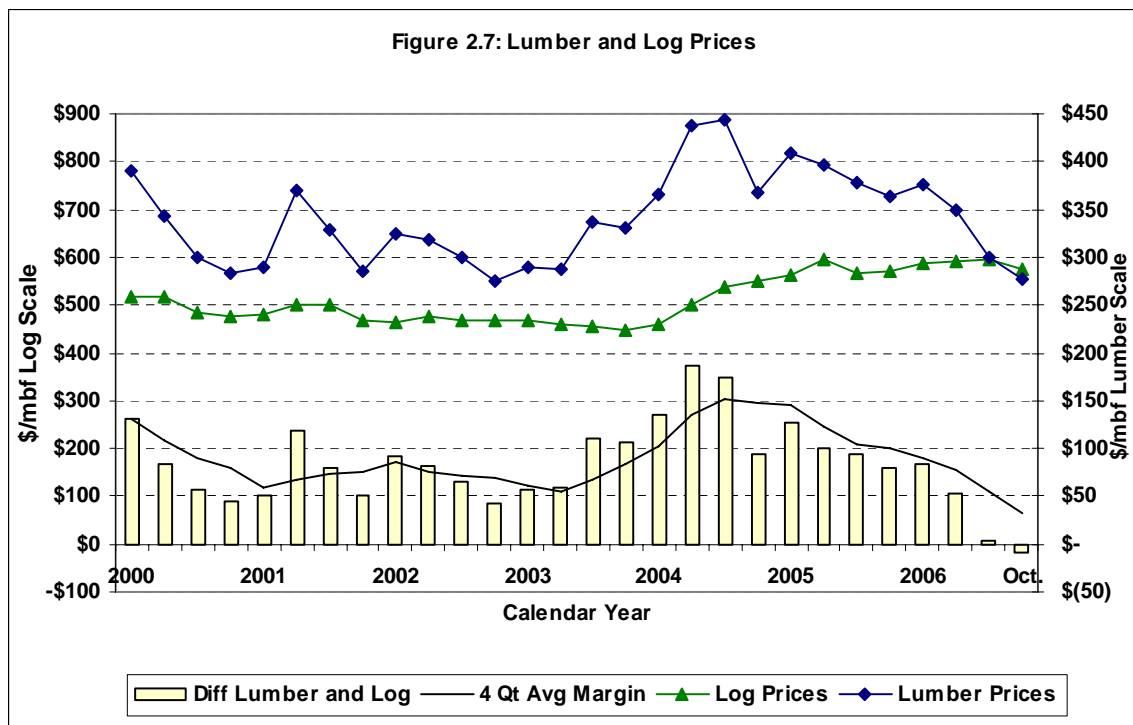
Logs

The average log price in the Puget Sound region, as reported by *Log Lines*, has remained relatively flat over the last 12 months, at \$585/mbf for #2 Sawmill Douglas-fir. In October it was \$575. See **Figure 2.6** for detail. During this same period, DNR stumpage prices also have been relatively flat, averaging \$385/mbf. Sales during the first quarter of CY 2006 were for relatively high quality, which may account for higher stumpage prices of \$418/mbf. During the third quarter of CY 2006 DNR stumpage prices averaged \$390/mbf on low volume. During October DNR prices fell to \$330/mbf.

Figure 2.7 shows the relationship between the composite lumber price index and the benchmark log prices in the Puget Sound region. Despite the significant fall in lumber prices over the past two years, log prices have actually increased through the third quarter but were down slightly in October. This has resulted in a dramatic reduction in margins between logs and lumber prices.

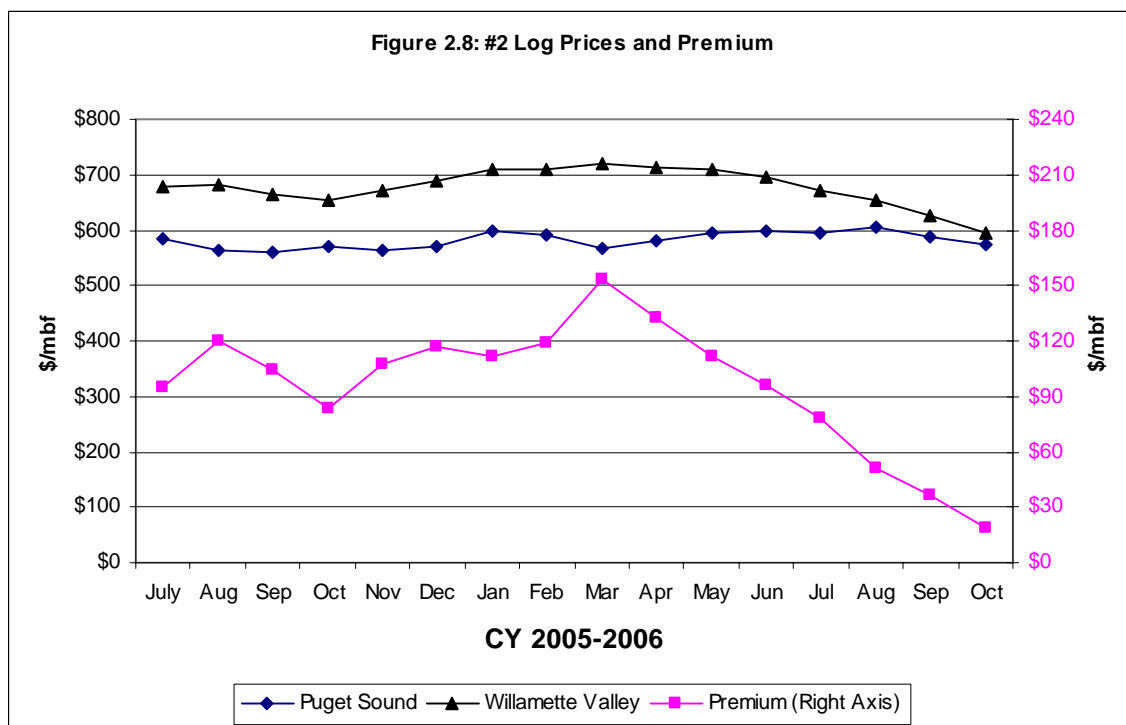


Note: “Margin” is defined as the difference between the average price of lumber and DNR stumpage.



Note: “Margin” is defined as the difference between the average price of lumber and logs.

The premium on Oregon logs continued to fall in October. In a March 2006 report, the average price for # 2 Douglas-fir logs in the Willamette Valley area (Region 5) was \$720/mbf—\$153 or 27 percent more than was reported in the Puget Sound area (Region 1). As shown in **Figure 2.8** below, in the past seven months that premium decreased 90 percent from \$153/mbf in March to just \$15/mbf in October.



Washington mills have lost their resource cost advantage over Oregon mills and any further erosion of lumber prices is likely to lower log and stumpage prices in Washington as it has in Oregon over the past seven months.

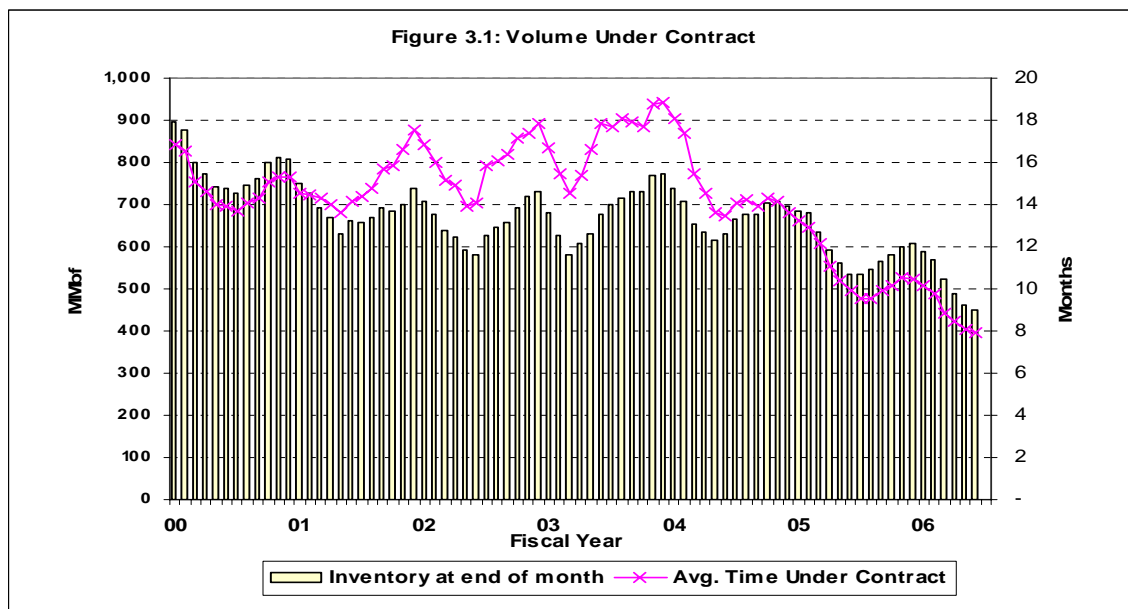
Part 3. DNR's Revenue Forecast

This revenue forecast includes timber revenues, upland lease revenues, and aquatic revenues. It also forecasts revenues to individual funds. It adds some uncertainty caveats concerning the forecast.

Timber revenues

The Department of Natural Resources sells timber through contracts or agreements. The department determines the volume offered for sale each month, and the price is set at auction at the time of sale. Revenues are collected at the time of harvest (removal). The purchaser determines the actual time of harvest within the terms of the contract. Contracts sold during the past year varied in duration from 3 months to 3.5 years, with an average of 18 months. Timber that is sold but not yet harvested is referred to as “volume under contract” or “inventory.” When timber is sold, it goes into the inventory, and is removed from the inventory when harvested.

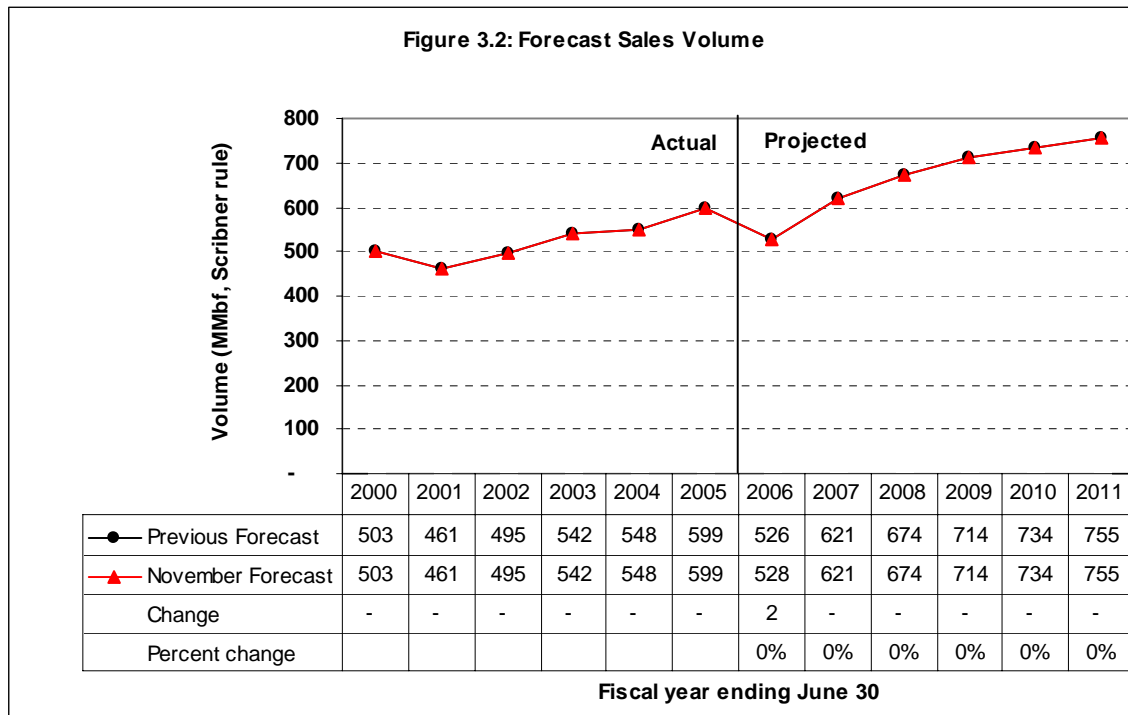
The average duration from sale to harvest (time under contract) fell from 19 months at the beginning of FY 2004, to just eight months in February 2006 (See **Figure 3.1**). Monthly data on inventory after this point is not yet available from the new timber sales system. The volume under contract at the end of FY 06 was 449 MMbf or 9.9 months worth at the forecast removal rate. The average time under contract is expected to stabilize at the current level, cycling from 8 to 10 months over the coming years.



Timber sales volume

Forecast timber sales volumes are unchanged from the September Forecast.

Sales in FY 06 are down from those in FY 05 as a result of a legal challenge to the department's new sustainable harvest. In March, the department reached a settlement with the plaintiffs. Under the terms of the agreement the department developed a new timber harvest schedules. See the June 2006 forecast for more details on the new sustainable harvest.



Timber Removal Volume

FY 2006 removals

Normally, the November Forecast would feature actual removal numbers through the first quarter of the current fiscal year (in this case FY 2007), but due to temporary disruptions from the switch to a new revenue and land management system, only preliminary removal data is available through June 30 (the end of FY 2006). Projected removals beyond FY 2006 are based on the preliminary report on the volume under contract at the end of FY 2006 and planned sales volumes in subsequent years.

Forecast removals in 2007 through 2011

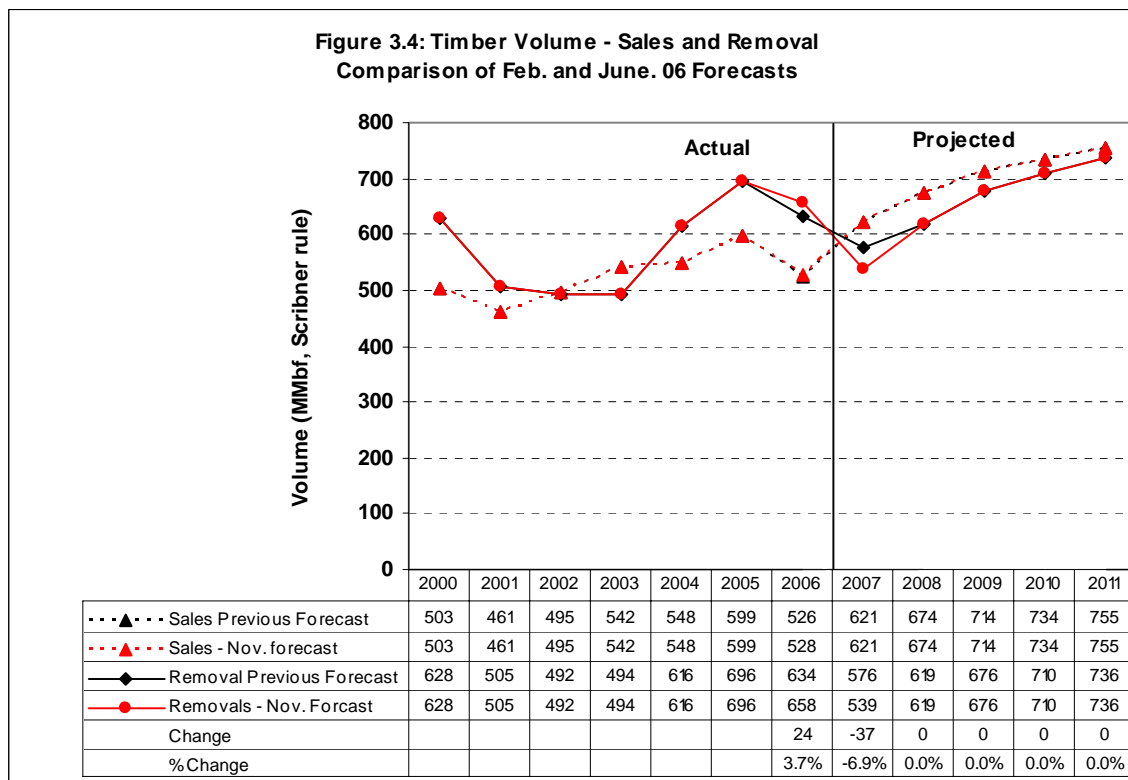
Because of the shift to a new revenue and land management computer system, DNR staff has been unable to conduct a timber purchasers' survey this quarter and will not be able to conduct another until January 2007. The last purchasers' survey was conducted in January 2006. It indicated that, at that time, purchasers intended to continue to harvest

from the volume under contract (inventory) at a torrid pace, harvesting 64 percent during the second half of FY 2006 and 94 percent within the next 12 months. Actual harvest (based on the preliminary reports) for the last half of FY 06 was even greater than forecast.

As indicated above, many of our purchasers have announced short term curtailment of operations and likely will slow the pace of their removals until demand and supply for lumber come back into balance. Historically, removals from DNR have been more vulnerable to market swings than harvests from private lands, as mills shifted into survival mode. Cash flow is now a much bigger issue for mills and they will conserve cash by providing as much of their (reduced) log needs from existing log decks, their own lands, and direct log purchases rather than from DNR sales.

This will be particularly acute as log prices fall below the removal prices that were set at the time of sale - on average a year ago. Purchasers will delay harvest in the hope that prices will recover and to avoid the pain of paying for the higher resource costs.

Figure 3.4 shows a comparison of both the forecast sales and removals in the September and November 2006 Forecasts. Removals are up by 24 MMbf in FY06 from that projected in September but forecast removal in FY 07 were reduced by 48 MMbf. This together with the 2 mmbf increase in sales volume resulted in a net reduction in removals of 15 MMbf. This is the result of a difference in the inventory at the end of FY 06 as compared to that used in earlier forecasts rather than a shift of removal from FY 07 into later time periods.



Even with the reductions, removals in FY 07-08 have more down-side potential than up. During the past three fiscal years, purchasers have reduced the volume under contract by harvesting more than the department has sold. During that period, removals have exceeded sales by more than 90 MMbf or 16 percent. Going back a little further, sales were greater than removals in only two of the last eight years and in one of those (FY 2002) sales exceeded removals by just 3 MMbf.

Over that 8-year period, removals exceeded sales by an average of 56 MMbf per year, or 10 percent, and the volume under contract was cut in half from just over a billion board feet to less than 500 million board feet. While the department has reduced the average contract length to just 18 months, the volume under contract is very low and on average volume is removed after just 10 months.

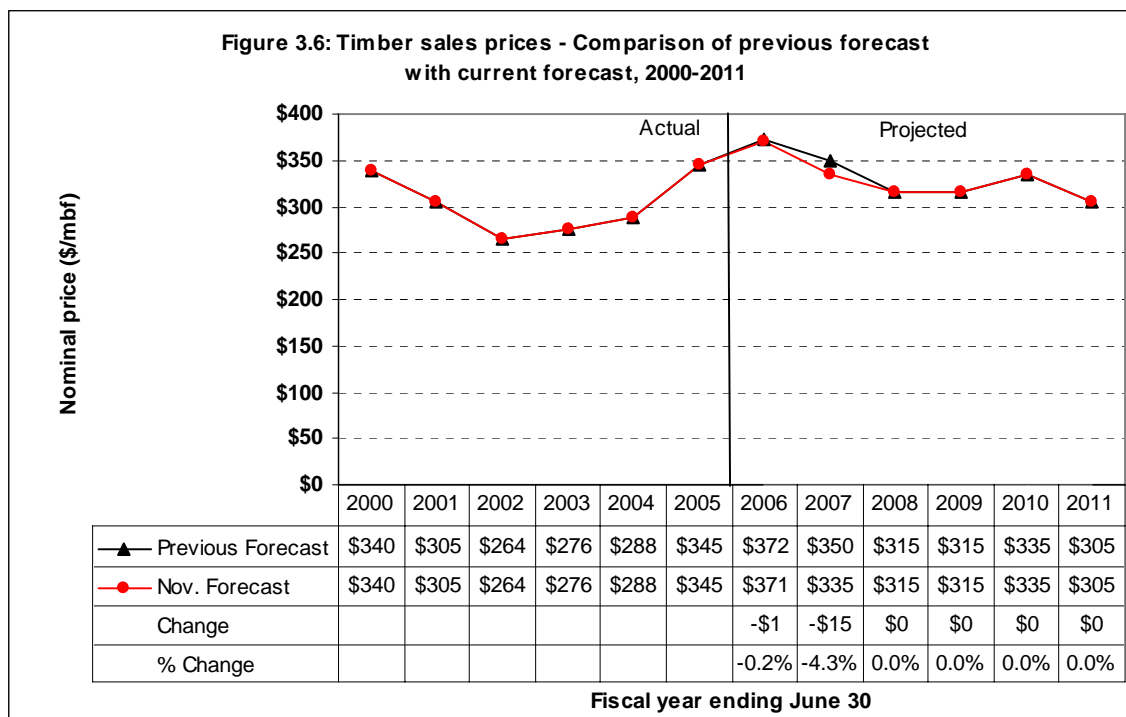
It would be easy for purchasers to delay removals on individual sales and move that average time under contract up by 3 months from 10 to 13 months. This would remove 150 MMbf from removals and add it to the inventory. Purchasers then would have the option of reducing the volume under contract when markets recover.

Timber sales prices

Actual sale prices for all of FY 06 were down about \$1/mbf from the September Forecast to \$371/mbf. Actual average timber sales price for FY 07 through November was \$360/mbf on a volume of 44 MMbf or 20 percent of the planned sales for the full year. Prices averaged \$389/mbf during the first quarter FY 07 but during the last two months have averaged \$333/mbf.

Based on these recent prices and the massive, albeit primarily temporary closure of mills in Western Washington and Oregon, we have reduced the forecast sales price for all of FY 07 to \$335/mbf, down by \$15/mbf or 4 percent from that forecast in September. This implies an average price of \$329/mbf for the remainder of the FY 07. The Forecast sales prices for the remainder of the forecast period were left unchanged. See **Figure 3.6** for detail.

Because of the slow-down in the housing market and the resulting impact on the lumber market, the down-side potential on stumpage prices is greatly increased. We currently predict prices will fall to \$315/mbf in FY 08-09 - just 5 percent below where they are today. Prices could easily fall to that level sooner or go even lower than we currently forecast.



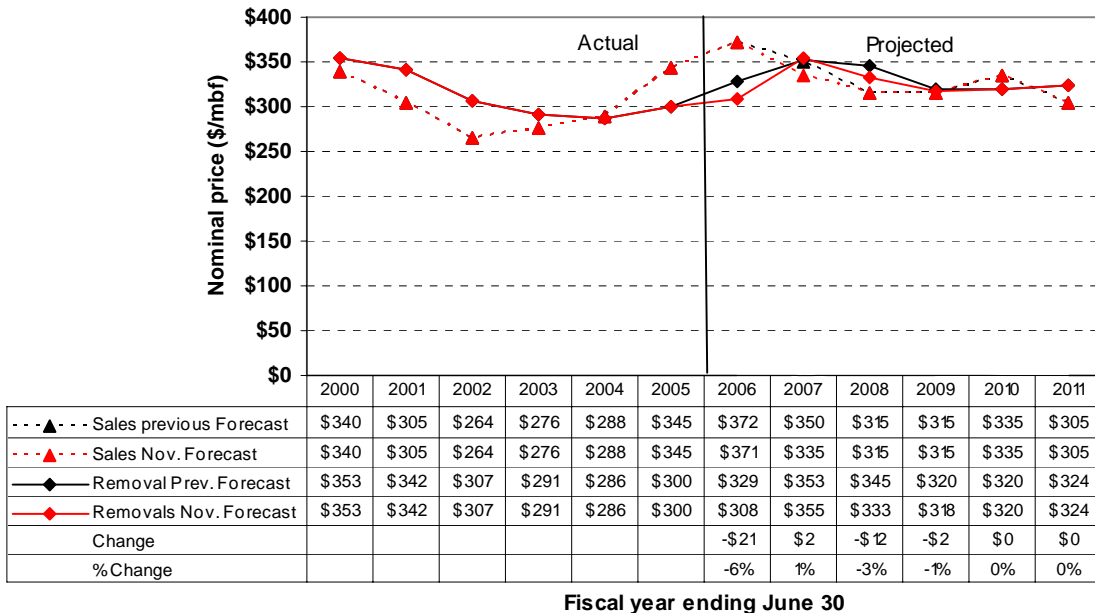
Timber removal prices

Removal prices are a function of sales prices and the timing of removals. They can be thought of as a moving average of previous sales prices weighted by the volume of sales removed that are from each previous sales period. This results in a smoothing out and a lag of removal prices compared to sales prices.

Based on the current preliminary timber reports, removal prices for all of FY 2006 were about \$21/mbf or 6 percent less than that was projected in September. Projected removal prices in FY 2007 are up by \$2/mbf or 1 percent. Next biennium, prices in FY 2008 are down by about \$12/mbf or 3 percent while those in FY 2009 are down by \$2/mbf from that forecast in September. Projected removal prices in the remainder of the forecast period were unchanged. See **Figure 3.7**.

The reduced removal prices of \$21 MBF in FY 2006 was primarily caused by a difference between the preliminary actuals for FY 2006 as compared to that projected based on earlier inventory and sales information. The reduction in projected removal prices in FY 2008 is the direct result of the reduction in projected sales prices in FY 2007.

Figure 3.7: Timber Removal prices - Comparison of previous forecast with current forecast, 2000-2011

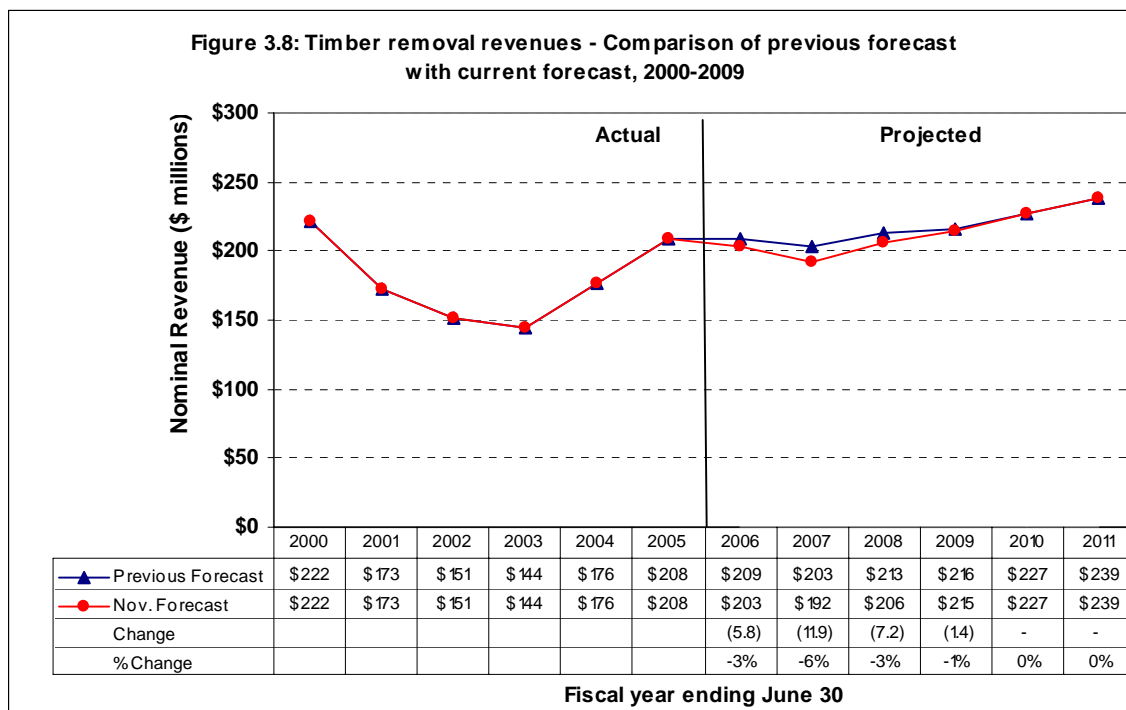


Timber removal revenues

Timber removal revenues in any given period are the product of the volume harvested during the period and the average removal price during that period.

Forecast timber removal revenues in 2006 through 2011

For the full forecast period, forecast timber removal revenues are down by \$26.3 million from that forecast in September. See **Figure 3.8** for detail. About \$9.0 million of the reduction was the result of reduced projected sales revenues and the remaining \$17.4 million was attributable to inventory adjustments.



Upland lease revenues

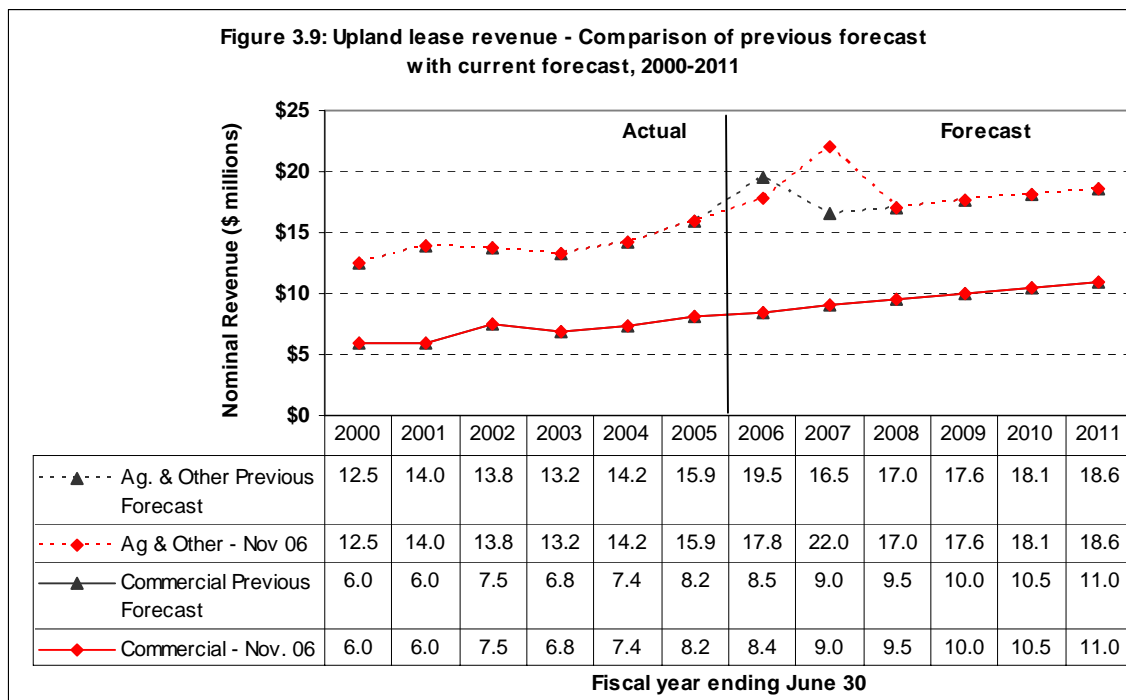
Upland lease revenues are generated primarily from leases and the sale of valuable materials other than timber. In the forecast, Upland lease revenues are divided into two categories:

- 1) Commercial - Commercial real estate leases.
- 2) Ag and Other - Agricultural, special use, mineral and hydrocarbon, rights-of-way, communications sites, and special forest products leases, and sale of valuable materials.

Oil and gas exploration leases

The department periodically holds auctions for the lease of state-owned lands for oil and gas exploration when industry and individuals show an interest.

Because of high prices for energy products, interest in exploration leases has increased. DNR held two oil and gas auctions—in November, 2005 and June 2006—which yielded an extra \$3.0 million in revenues for schools and other trust beneficiaries during FY 2006. Another auction was held in FY 07 yielded an additional \$4.5 million. The department has offered all the areas where interest in exploration was expected so no further auctions are scheduled at this time.



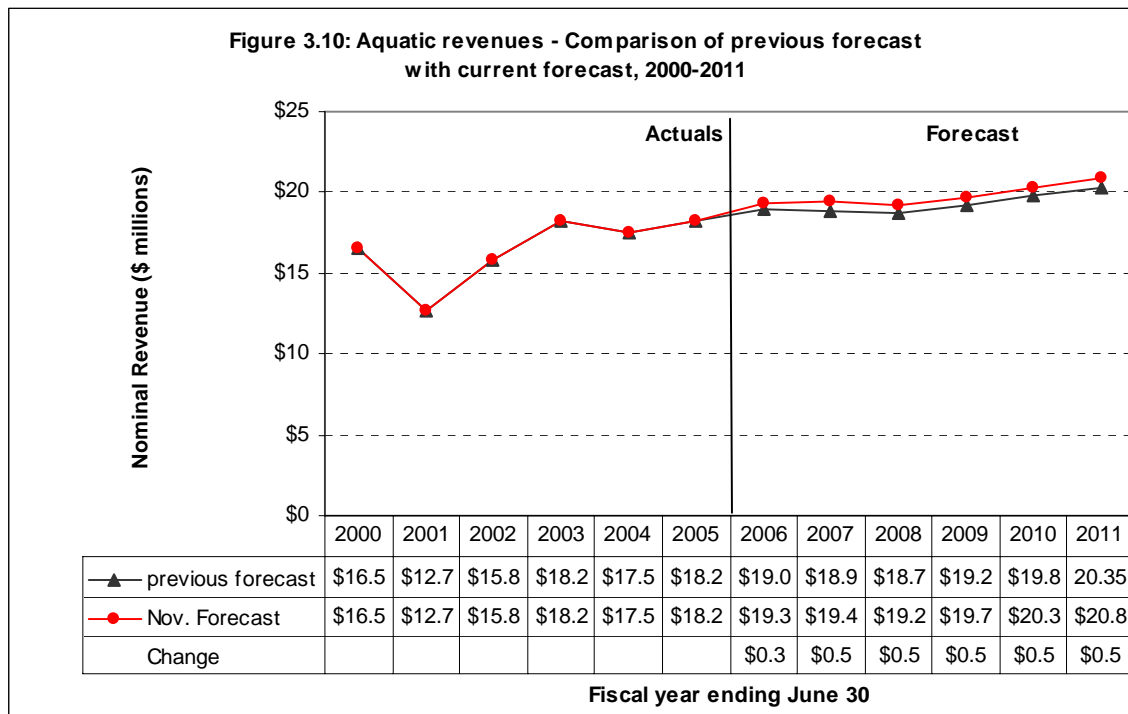
The preliminary reports on which FY 2006 revenues are based, indicate that actual agriculture and other leases were \$1.7 million less than previously forecast. About \$1.0 million of the reduction was in special use leases and the remaining \$0.7 million is attributable to lower than anticipated hydrocarbon revenues.

FY 2008 and beyond

Projected upland lease revenues for FY 2008 – FY 2009 are unchanged from the September 2006 Forecast. Revenues are expected to trend steadily upward through the remainder of the forecast period, reflecting an increase in commercial leasing receipts, as well as a shift to higher value agriculture investments. See **Figure 3.9**.

Aquatic revenues

The preliminary actual aquatic revenues for FY 2006 are \$0.3 million more than forecast in September. Revenues for FY 2006 are \$0.8 million greater than in FY 05 which were \$0.8 million higher than in FY 2004. Primarily due to the strength of actual revenues collections, forecast aquatic revenues were increased by \$0.5 million per year for the remainder of the forecast period.

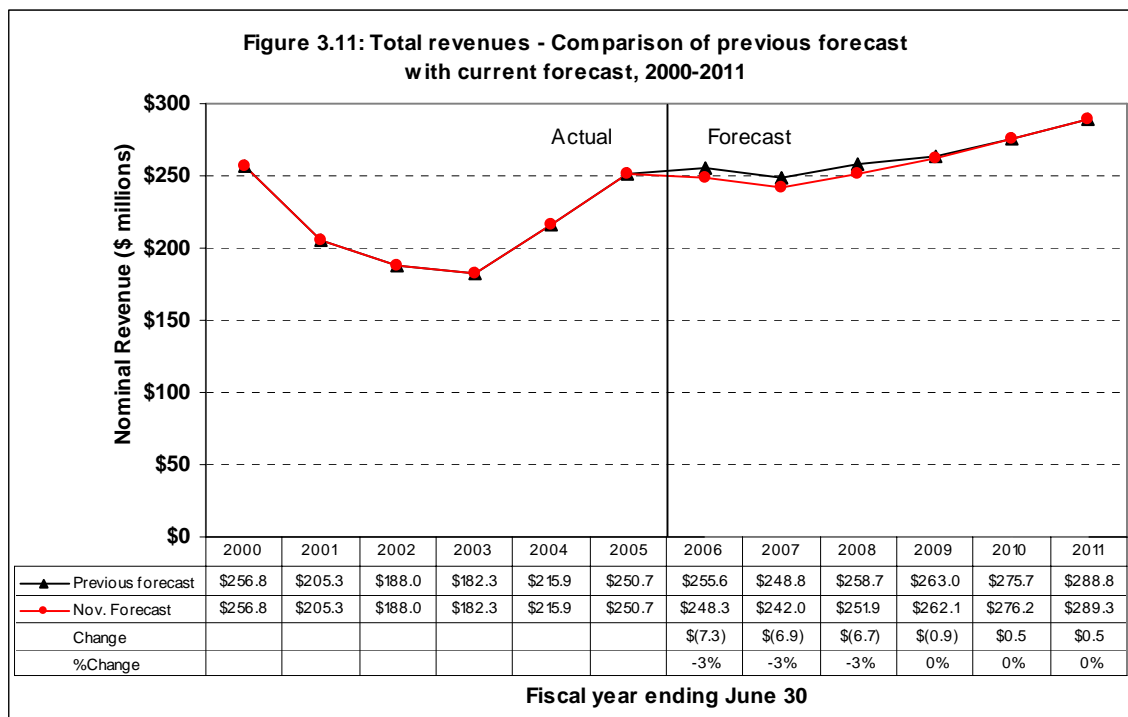


Forecast Aquatic revenues in FY 2007 and FY 2008 are virtually the same as that collected in FY 06 as some specific short term right-of-way revenues end but are offset by expected increases in revenues in other areas. Revenues after 2008 are expected to increase by about \$0.5 million per year.

Total revenues from all sources

Overall, Forecast total revenues are little changed from that forecast in September. They are down by about 3 percent in FY 06 through FY 08, and down by less than 1 percent in FY 09, and are up slightly in the last two years of the forecast. Over the entire Forecast, timber revenues are down \$20.8 million, less than 2 percent.

Total revenues in FY 2006 are down from that in FY 2005 by almost \$2.4 million, just 2 percent. Revenues are forecast to fall almost \$6.3 million from FY 06 to FY 07. For the remainder of the forecast period, total revenues are forecast to increase modestly at an annual of just 3.8 percent.



Some caveats

"We all know the consequences of data being wrong or arriving too late. Our reputations rest on the data we use. The better the data, the less our uncertainty. And the less our uncertainty, the better our ability to make sound decisions."

*Richard Fisher
Federal Reserve Bank of Dallas
Nov. 2, 2006*

DNR strives to produce the most accurate and objective forecast possible, based on the department's current policy directions and the information available at the time the forecast is produced. Actual revenues will depend on future policy decisions made by the legislature and the department, as well as market conditions beyond the department's control. Listed below are issues that potentially could significantly impact future revenues from DNR-managed lands:

- **Sales volume** The projected sales levels in this forecast are based on sales the department can operationally offer in compliance with the terms of the agreement that ended the legal challenge concerning DNR's sustainable harvest calculation. As a part of the agreement, DNR will re-run the sustainable harvest model and bring the results to the Board of Natural Resources (the Board) for a decision before the end of CY 2007. When the Board approves a new sustainable harvest level, the department will revise its timber sales plan and the forecast to be consistent with the Board's decision. See the June 2006 Forecast for more details on this issue.
- **Housing markets** A very strong housing market has fueled the demand for lumber and supported lumber prices over the last two years. The strong housing market was supported by low interest rates and appreciating housing prices. The forecast assumes that the housing boom will unwind in a "soft landing"—moving to more sustainable long-term rates. If the bubble bursts, the housing market could crash. This could significantly reduce the demand for lumber and stumpage resulting in lower sales prices than currently forecast.
- **Volume under contract** The volume under contract has fallen significantly over the last three years as purchasers have harvested more than the department has sold. Over the forecast period, we expect the volume under contract to stabilize relative to removals at the 8-to-10-month supply level. The scheduling of removals within the terms of the contract is, however, at the discretion of the purchasers. The purchasers could choose to rebuild their inventories, particularly during a period of reduced timber demand, by reducing removals relative to sales. This could significantly reduce removals and revenues below the levels in our current forecast. On the other hand, purchasers could continue to accelerate removals by shortening the average time under contract.

-
- **RMCA management fee** The increase in the RMCA management fee (the costs of managing state trust forests) during the 2005-2007 biennium (FY 2006 and FY 2007) removed a large uncertainty from the forecast for that period. Without additional legislative action, the maximum RMCA management fee will return to 25 percent on July 1, 2007 and revenues to RMCA will be about \$5.8 million less per year next biennium than if the deduction remained at 30 percent. This could constrain DNR's ability to produce revenues starting in FY 2008. The department is currently evaluating the RMCA fund balance and will report to the Board and the Legislature on its findings.

These and other future circumstances will undoubtedly impact future revenues. As events and market conditions develop, DNR will incorporate new information into future forecast updates.

Distribution of revenues

Change from previous forecast

This Forecast incorporates preliminary actual revenues by fund for FY 2006. In addition preliminary information on value under contract by trust at the end of FY 06 was used as a basis for projected timber removal revenues by fund. This forecast also incorporated revised timber sales plans by trust for FY 2007, as well as the first sales plan for FY 2008.

Timber revenues by fund are based on the value of timber in the inventory (sales sold but not yet harvested) as of the beginning of FY 07, planned sales for FY 08 and FY 09 and the distribution of the sustainable harvest for FY 10 and FY11. Sales are assumed to be harvested on average 10 months after they are sold. Distribution of lease revenues is assumed to be proportionate to historic distributions.

A single timber sale can be worth over \$3.0 million, so the removal or addition of a single sale can result in a significant shift in revenues to a specific fund.

Revenue forecast tables

Tables 3.1 and 3.2 on the following pages provide forecast details. Table 3.1 focuses on the source of revenues, and Table 3.2 focuses on the distribution of revenues. Both tables include historical and projected figures.

Table 3.1: November 06 Forecast by source (In millions of Dollars)

Change from Sept 06 Forecast

Sold Timber Sales	FY 04	FY 05	FY 06	FY 07	FY 08	FY 09	FY 10	FY 11
Volume (mmbf)	548	599	528	621	674	714	734	755
Change	-	-	2	-	-	-	-	-
% Change	0%	0%	0%	0%	0%	0%	0%	0%
Price (\$/mbf)	\$288	\$345	\$371	\$335	\$315	\$315	\$335	\$305
Change	\$0	\$0	-\$1	-\$15	\$0	\$0	\$0	\$0
% Change	0%	0%	0%	-4%	0%	0%	0%	0%
Value of Timber Sales (in Millions of Dollars)	\$ 158.0	\$ 206.3	\$ 196.0	\$ 208.0	\$ 212.3	\$ 224.9	\$ 245.9	\$ 230.3
Change	\$ -	\$ -	\$ 0.3	\$ (9.3)	\$ -	\$ -	\$ -	\$ -
% Change	0%	0%	0%	-4%	0%	0%	0%	0%

Timber Removals	FY 04	FY 05	FY 06	FY 07	FY 08	FY 09	FY 10	FY 11
Volume (mmbf)	616	696	658	539	619	676	710	736
Change	-	-	24	(37)	0	-	-	-
% Change	0%	0%	4%	-6%	0%	0%	0%	0%
Price (\$/mbf)	\$286	\$300	\$308	\$355	\$333	\$318	\$320	\$324
Change	\$0	\$0	-\$21	\$2	-\$12	-\$2	\$0	\$0
% Change	0%	0%	-6%	1%	-3%	-1%	0%	0%
Timber Revenue (in Millions of Dollars)	\$ 176.5	\$ 208.4	\$ 202.7	\$ 191.6	\$ 206.2	\$ 214.8	\$ 227.3	\$ 238.8
Change	\$ -	\$ -	\$ (5.8)	\$ (11.9)	\$ (7.2)	\$ (1.4)	\$ -	\$ -
% Change	0%	0%	-3%	-6%	-3%	-1%	0%	0%

Lease Revenue	FY 04	FY 05	FY 06	FY 07	FY 08	FY 09	FY 10	FY 11
Agricultural and Mineral	\$ 14.2	\$ 15.9	\$ 17.8	\$ 22.0	\$ 17.0	\$ 17.6	\$ 18.1	\$ 18.6
Change	\$ -	\$ -	\$ (1.7)	\$ 4.5	\$ -	\$ -	\$ -	\$ -
% Change	0%	0%	-9%	26%	0%	0%	0%	0%
Commercial	\$ 7.4	\$ 8.2	\$ 8.4	\$ 9.0	\$ 9.5	\$ 10.0	\$ 10.5	\$ 11.0
Change	\$ -	\$ -	\$ (0.1)	\$ -	\$ -	\$ -	\$ -	\$ -
% Change	0%	0%	-1%	0%	0%	0%	0%	0%
Aquatic revenue	\$ 17.8	\$ 18.2	\$ 19.3	\$ 19.4	\$ 19.2	\$ 19.7	\$ 20.3	\$ 20.8
Change	\$ -	\$ -	\$ 0.3	\$ 0.5	\$ 0.5	\$ 0.5	\$ 0.5	\$ 0.5
% Change	0%	0%	2%	3%	3%	3%	3%	2%
Total Lease Revenue	\$ 39.4	\$ 42.2	\$ 45.6	\$ 50.4	\$ 45.7	\$ 47.3	\$ 48.9	\$ 50.4
Change	\$ -	\$ -	\$ (1.4)	\$ 5.0	\$ 0.5	\$ 0.5	\$ 0.5	\$ 0.5
% Change	0%	0%	-3%	11%	1%	1%	1%	1%

Total All Source	\$ 215.9	\$ 250.7	\$ 248.3	\$ 242.0	\$ 251.9	\$ 262.1	\$ 276.2	\$ 289.3
Change	\$ -	\$ -	\$ (7.3)	\$ (6.9)	\$ (6.7)	\$ (0.9)	\$ 0.5	\$ 0.5
% Change	0%	0%	-3%	-3%	-3%	0%	0%	0%

Trust land Transfer (resource value)	\$ 18.4	\$ 19.9	\$ 11.3	\$ 50.3	\$ -	\$ -	\$ -	\$ -
Change	\$ -	\$ -	N.A.	N.A.	\$ -	\$ -	\$ -	\$ -
% Change	0%	0%	N.A.	N.A.	-	-	-	-

Note: Trust land Transfer is not included in distribution of revenues

Excludes interest and Land Bank Transactions, Fire Assessments, permits, and fees

Totals may not add due to rounding.

Table 3.2: November 06 Forecast by Fund (In millions of Dollars)

RMCA uplands in FY 06 & FY 07====> 30%
 RMCA uplands in FY 08 & FY 09====> 25%
 RMCA uplands in FY 10 & FY 11====> 25%

Change from Sept 06 Forecast

Management Funds	FY 04	FY 05	FY 06	FY 07	FY 08	FY 09	FY 10	FY 11
041 RMCA - Upland	\$ 23.3	\$ 29.2	\$ 37.7	\$ 39.1	\$ 34.6	\$ 37.8	\$ 39.4	\$ 41.0
Change	\$ -	\$ -	\$ (1.2)	\$ (2.6)	\$ (0.8)	\$ 0.9	\$ 0.3	\$ 0.1
% Change	0%	0%	-3%	-6%	-2%	2%	1%	0%
041 RMCA - Aquatic	\$ 7.3	\$ 7.6	\$ 8.3	\$ 8.2	\$ 8.2	\$ 8.4	\$ 8.6	\$ 8.9
Change	\$ -	\$ -	\$ 0.3	\$ 0.2	\$ 0.2	\$ 0.2	\$ 0.2	\$ 0.2
% Change	0%	0%	3%	3%	3%	3%	3%	2%
014 FDA	\$ 23.8	\$ 26.0	\$ 22.7	\$ 21.0	\$ 20.7	\$ 20.2	\$ 21.9	\$ 23.3
Change	\$ -	\$ -	\$ (1.0)	\$ 1.1	\$ (0.9)	\$ (1.2)	\$ (0.3)	\$ (0.1)
% Change	0%	0%	-4%	6%	-4%	-6%	-1%	0%
Total Management Funds	\$ 54.3	\$ 62.7	\$ 68.7	\$ 68.3	\$ 63.5	\$ 66.3	\$ 69.9	\$ 73.1
Change	\$ -	\$ -	\$ (1.9)	\$ (1.3)	\$ (1.5)	\$ (0.1)	\$ 0.2	\$ 0.2
% Change	0%	0%	-3%	-2%	-2%	0%	0%	0%

Current funds	FY 04	FY 05	FY 06	FY 07	FY 08	FY 09	FY 10	FY 11
113 Common School Construction	\$ 49.8	\$ 63.3	\$ 64.3	\$ 61.8	\$ 71.7	\$ 79.3	\$ 80.3	\$ 82.8
Change	\$ -	\$ -	\$ (2.1)	\$ (3.1)	\$ (2.8)	\$ 4.4	\$ 1.4	\$ 0.3
% Change	0%	0%	-3%	-5%	-4%	6%	2%	0%
999 Forest Board counties	\$ 70.7	\$ 81.1	\$ 72.6	\$ 64.0	\$ 64.2	\$ 60.5	\$ 66.2	\$ 70.7
Change	\$ -	\$ -	\$ (1.6)	\$ 3.1	\$ (1.5)	\$ (4.5)	\$ (1.1)	\$ (0.2)
% Change	0%	0%	-2%	5%	-2%	-7%	-2%	0%
001 General Fund	\$ 5.6	\$ 3.2	\$ 2.9	\$ 3.1	\$ 3.3	\$ 4.1	\$ 3.8	\$ 3.8
Change	\$ -	\$ -	\$ (0.4)	\$ (0.2)	\$ (0.7)	\$ 0.6	\$ 0.2	\$ (0.0)
% Change	0%	0%	-12%	-7%	-17%	17%	5%	0%
348 University Bond Retirement	\$ 0.6	\$ 1.6	\$ 2.3	\$ 2.1	\$ 4.5	\$ 4.8	\$ 3.1	\$ 2.8
Change	\$ -	\$ -	\$ 0.1	\$ (0.8)	\$ 1.9	\$ 2.3	\$ 0.5	\$ 0.0
% Change	0%	0%	4%	-28%	71%	89%	18%	0%
347 WSU Bond Retirement	\$ 0.8	\$ 0.9	\$ 1.1	\$ 1.2	\$ 0.9	\$ 1.0	\$ 1.0	\$ 1.0
Change	\$ -	\$ -	\$ 0.1	\$ 0.2	\$ -	\$ -	\$ -	\$ -
% Change	0%	0%	9%	26%	0%	0%	0%	0%
042 CEP&RI	\$ 6.0	\$ 5.8	\$ 3.8	\$ 7.8	\$ 6.7	\$ 4.9	\$ 6.8	\$ 7.7
Change	\$ -	\$ -	\$ (0.7)	\$ 1.4	\$ (0.0)	\$ (2.2)	\$ (0.7)	\$ (0.1)
% Change	0%	0%	-15%	23%	0%	-31%	-9%	-2%
036 Capitol Building Construction	\$ 5.6	\$ 8.5	\$ 7.0	\$ 6.4	\$ 9.4	\$ 12.5	\$ 14.3	\$ 15.2
Change	\$ -	\$ -	\$ (0.3)	\$ (2.5)	\$ (0.9)	\$ (0.8)	\$ (0.2)	\$ (0.0)
% Change	0%	0%	-4%	-28%	-9%	-6%	-1%	0%
061/3 Normal (CWU, EWU, WWU, TESC) S	\$ 0.1	\$ 0.1	\$ 0.1	\$ 0.1	\$ 0.1	\$ 0.1	\$ 0.1	\$ 0.1
Change	\$ -	\$ -	\$ (0.0)	\$ 0.0	\$ -	\$ -	\$ -	\$ -
% Change	0%	0%	-10%	26%	0%	0%	0%	0%
Other Funds	\$ 1.0	\$ 0.0	\$ 0.0	\$ 0.3	\$ 0.6	\$ 0.2	\$ 0.2	\$ 0.2
Change	\$ -	\$ -	\$ -	\$ (0.2)	\$ 0.3	\$ (0.0)	\$ (0.0)	\$ (0.0)
% Change	0%	0%	0%	-44%	110%	-6%	-14%	0%
Total Current Funds	\$ 140.1	\$ 164.5	\$ 154.2	\$ 146.7	\$ 161.5	\$ 167.4	\$ 175.9	\$ 184.3
Change	\$ -	\$ -	\$ (4.8)	\$ (2.2)	\$ (3.7)	\$ (0.3)	\$ 0.1	\$ 0.0
% Change	0%	0%	-3%	-1%	-2%	0%	0%	0%

(Continued)

Table 3.2(Continued): November 06 Forecast by Fund (In millions of Dollars)

RMCA uplands in FY 06 & FY 07====> 30%
 RMCA uplands in FY 08 & FY 09====> 25%
 RMCA uplands in FY 10 & FY 11====> 25%

Change from Sept 06 Forecast

Aquatic lands Enhancement Account		FY 04	FY 05	FY 06	FY 07	FY 08	FY 09	FY 10	FY 11
02R		\$ 10.4	\$ 10.6	\$ 11.1	\$ 11.2	\$ 11.0	\$ 11.3	\$ 11.6	\$ 12.0
Change		\$ -	\$ -	\$ 0.1	\$ 0.3	\$ 0.3	\$ 0.3	\$ 0.3	\$ 0.3
% Change		0%	0%	1%	3%	3%	3%	3%	2%

Permanent Funds		FY 04	FY 05	FY 06	FY 07	FY 08	FY 09	FY 10	FY 11
601 Agricultural College Permanent		\$ 3.6	\$ 4.1	\$ 4.7	\$ 3.2	\$ 5.1	\$ 5.8	\$ 5.9	\$ 6.1
Change		\$ -	\$ -	\$ (0.1)	\$ (2.3)	\$ (1.2)	\$ 0.3	\$ 0.1	\$ (0.0)
% Change		0%	0%	-2%	-42%	-19%	5%	1%	0%
604 Normal School Permanent		\$ 3.2	\$ 2.8	\$ 3.3	\$ 2.2	\$ 3.3	\$ 4.8	\$ 4.1	\$ 4.0
Change		\$ -	\$ -	\$ (0.1)	\$ (0.5)	\$ (0.1)	\$ 1.2	\$ 0.3	\$ (0.0)
% Change		0%	0%	-2%	-18%	-4%	32%	9%	0%
605 Common School Permanent		\$ 0.4	\$ 0.3	\$ 0.3	\$ 0.4	\$ 0.3	\$ 0.3	\$ 0.3	\$ 0.4
Change		\$ -	\$ -	\$ (0.0)	\$ 0.1	\$ -	\$ -	\$ -	\$ -
% Change		0%	0%	-13%	26%	0%	0%	0%	0%
606 Scientific Permanent		\$ 3.2	\$ 5.0	\$ 5.6	\$ 8.3	\$ 5.9	\$ 4.7	\$ 7.7	\$ 8.9
Change		\$ -	\$ -	\$ (0.1)	\$ (1.7)	\$ (0.6)	\$ (3.1)	\$ (0.7)	\$ (0.0)
% Change		0%	0%	-2%	-17%	-10%	-40%	-9%	0%
607 University Permanent		\$ 0.4	\$ 0.7	\$ 0.5	\$ 1.7	\$ 1.2	\$ 1.3	\$ 0.7	\$ 0.5
Change		\$ -	\$ -	\$ (0.2)	\$ 0.7	\$ 0.2	\$ 0.9	\$ 0.2	\$ (0.0)
% Change		0%	0%	-34%	69%	23%	201%	43%	0%
Total Permanent Funds		\$ 10.9	\$ 12.9	\$ 14.3	\$ 15.8	\$ 15.9	\$ 17.0	\$ 18.7	\$ 19.8
Change		\$ -	\$ -	\$ (0.6)	\$ (3.7)	\$ (1.8)	\$ (0.8)	\$ (0.1)	\$ (0.0)
% Change		0%	0%	-4%	-19%	-10%	-4%	-1%	0%

Total All funds		FY 04	FY 05	FY 06	FY 07	FY 08	FY 09	FY 10	FY 11
Total		\$ 215.7	\$ 250.7	\$ 248.3	\$ 242.0	\$ 251.9	\$ 262.1	\$ 276.2	\$ 289.3
Change		\$ -	\$ -	\$ (7.3)	\$ (6.9)	\$ (6.7)	\$ (0.9)	\$ 0.5	\$ 0.5
% Change		0%	0%	-3%	-3%	-3%	0%	0%	0%

Note: Trust land Transfer is not included in distribution of revenues
 Excludes interest and Land Bank Transactions, Fire Assessments, permits, and fees
 Totals may not add due to rounding.